

AMXDmax®

Advanced Mission Extender Device

User & Maintenance Guide



Omni Medical Systems
www.OmniAMXD.com

Warranty

Warranty

Omni warrants its system to the original purchaser, against defects in material and workmanship for a period of one year from the date of original purchase. Omni will, at our option, replace or repair defective parts without charge. Omni will, replace or repair any part found to be defective upon inspection by Omni. The purchaser will be responsible for freight to Omni. Omni will be responsible for freight, via UPS Ground, to purchaser after repairs. This warranty does not apply in the event of misuse or abuse or failure by the user to maintain the system in accordance with Omni instructions or as a result of unauthorized alteration or repairs. Damage occurring during transit is not covered by this warranty. No other warranty expressed or implied shall apply and in no event shall Omni be liable for consequential economic damage or consequential damage to property.

Omni Medical Systems Disclaimer

Buyer assumes all risk and liability whatsoever from the installation and use of Omni products. Omni products are sold as bodily fluid collection and storage devices and should not be relied upon as protection from bodily fluids exposure to the body, clothing or other items such as flight deck. Omni assumes no liability for injury, loss, incidental or consequential damages in the event of an accident.

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Important Safety Information

Before using the AMXDmax® System in a mission setting, familiarize yourself with the components and operation of the system. **Practice** using the AMXDmax® in a chair or flight simulator before using it in an aircraft.

1. Always follow instructions when operating the device.
2. The batteries must be fully recharged at least once every 12 months.
3. The batteries must be left in fully charged state when they are not going to be used for more than 2 months.
4. Do not submerge Control Unit under water.
5. Do not use liquid cleaners (bleach, vinegar, alcohol, ammonia, etc.) or aerosol cleaners. Clean using a warm water (or a solution of 3% hydrogen peroxide) and a damp cloth.
6. Use only the type of power supply provided with the AMXDmax® System.
7. Do not attempt to service this product yourself, as opening or removing covers may damage the device and void your warranty.
8. Refer all servicing to qualified ***Omni Medical Systems*** service personnel.
9. Refer all servicing to ***Omni Medical Systems*** service personnel under the following conditions:
 - When the power-supply cord or plug is damaged.
 - If the product does not operate normally contact product dealer.
 - If the product has been dropped or damaged in any way.
 - When the product exhibits a distinct change in performance.
10. All servicing should be done by an Omni certified service technician. Unauthorized component substitutions may result in fire, electric shock, or other hazards.
11. This product should be kept away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.

System Components

Control Unit Kit



Collection Bag



Undergarments



Male Cup



Female Pad



Control Unit Kit

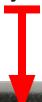
Kit Contents

- 1 Control Unit
- 1 Charger
- 2 Battery Packs
- 1 Wall Power Adaptor
- 1 User Manual
- 1 USB Flash Drive

The USB Flash Drive contains:

- Manual PDF
- Instructional Video
- Marketing Video
- AMDXmax Presentation PDF

Battery & Charger



Power Supply

USB Flash Drive

Control Unit & Battery



User Manual

GSA: CSK
DOD: CSK-2 M/F

Control Unit

Male Unit



Hose Valves

Sensor Pins

Pad Air Valve

Female Unit

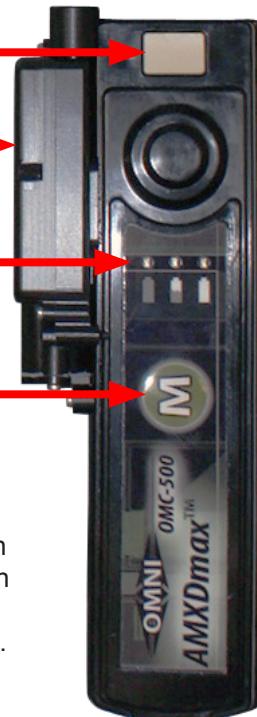


Bag Release

Air Pressure
Regulator Module
(APRM)

Battery Status
Indicator Lights

Manual "M"
Push Button



The Control Unit is used with the Male Cup or Female Pad, Undergarment, and Collection Bag to provide aircrew with an automated, non-invasive, in-flight, bladder relief system.



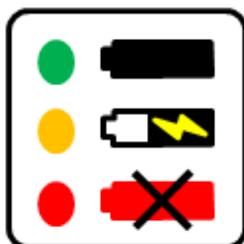
Battery
Release Latch



GSA: SCU-10
DOD: SCU-10-2 M/F

Charger

The battery charger only for use with the AMXDmax® rechargeable battery packs. It must only be used with the supplied power supply which has an input range of AC100-240V 50/60Hz.



Battery status indicator lights

- A solid **GREEN** light indicates that the battery is charged
- A flashing **YELLOW** light indicates that the battery is charging
- A flashing **RED** light indicates that the battery needs service

Batteries

**DO NOT submerge batteries in water.
DO NOT leave batteries discharged.**

Standard Rechargeable Battery

Fully charged, the battery lasts for up to 12 uses within a 12 hour period.

Long Term Storage: Battery must be fully recharged and left charged every 12 months.

2 batteries come standard with the Control Unit Kit, providing up to 24 hours of flight time.



GSA: SCU-RBP
DOD: SCU-RBP-2

Optional 9V Battery Pack

Sold Separately



Battery pack that uses disposable 9V Lithium batteries. Capacity is 2 times that of the standard rechargeable battery

DO NOT use the 9V Battery Pack with the battery charger

GSA: SCU-ABP
DOD: SCU-ABP-2

Male Cup

The Male Cup is safe, sanitary, and fits like a flexible athletic cup. The non-invasive, urethane cup has an integrated **urine sensor** for automatic operation. The soft **foam ring** provides a comfortable fit against the body. The cup is reusable, at the user's discretion, for up to **20 flights** or **30 days** with proper cleaning.



GSA: SCU-RBP-VA
DOD: IMC-2

Female Pad

The Female Pad is safe, sanitary, and shaped to fit like a female sanitary pad. The non-invasive pad has an integrated **urine sensor** for automatic operation. The pad inflates to provide a **leak proof seal** between the pad and the body. It has a soft, non-woven **fabric cover** to provide comfort. The pad is reusable, at the user's discretion, for up to **5 flights** or **15 days** with proper cleaning.



Collection Bag

The Collection Chamber Unit (Bag) is manufactured from durable, medical-grade urethane. It has a **standard capacity of 1200mL**. While **not recommended**, in an **emergency it can withstand up to 2200mL**.



Filled with 2.2L

Filled with 1.2L



DO NOT OVERFILL THE COLLECTION BAG

The Collection Bag has a 1000mL over-capacity emergency factor

GSA: CCU-10

DOD: CB-10-2-RU

Undergarment

The undergarments are used to hold the Cup or Pad in place. They should be sized for a snug fit. They are made out of **100% cotton** and are **machine washable**.

Male Undergarment



GSA: MG-1/2
DOD: MG1/2

Female Undergarment



GSA: FG-1/2
DOD: FG-1/2

Male System Overview

The Male System consists of the Male Cup, Control Unit, and Collection Bag, and are connected together as demonstrated. These are the only components required on a mission. Additional batteries and bags may be taken as needed.



Female System Overview

The Female System consists of the Female Pad, Control Unit, and Collection Bag, and are connected together as demonstrated. These are the only components required on a mission. Additional batteries and bags may be taken as needed.



Charging the System

The battery pack **must be charged prior to the first use.**
It make take up to 2.5 hours.



Connect a **Rechargeable Battery** to the **Charger**.



Connect the cord from the **Power Supply** to the **Charger**



A solid **GREEN** light indicates that the battery is charged

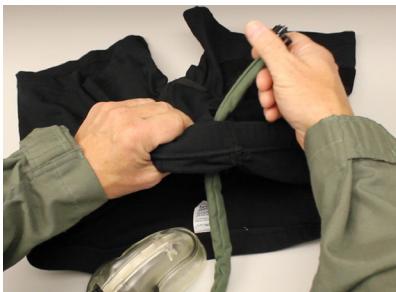


A flashing **YELLOW** light indicates that the battery is charging



A flashing **RED** light indicates that the battery is completely discharged. If it does not change to yellow after an hour, the battery may need service.

Donning the Male System



Feed the hose of the **Male Cup** through the hole in the inside cup pocket and out through the front of the undergarment.



Insert the **Male Cup** into the cup pocket on the inside of the Undegarment.



Align the foam ring with the large hole inside the Undergarment.

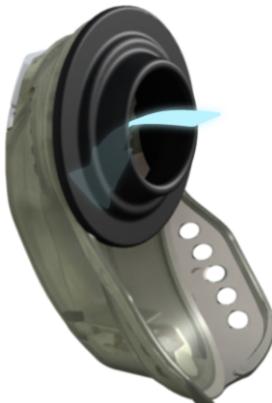
Fasten the pocket shut with the Velcro strip.



Attach the hose to the front of the undegarment using the Velcro loop.

The Cup may also be inserted into the Undergarment while being worn

Donning the Male System



After the cup has been placed into the boxerbriefs, insert the Male Anatomy **through the foam ring** of the cup while donning the boxerbriefs.



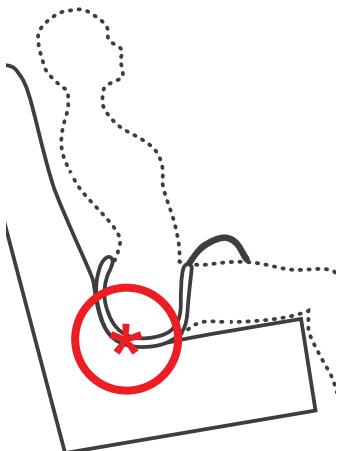
The boxerbriefs should be a comfortable, snug fit to properly hold the Male Cup in place. Ensure that the hose can be retrieved through the bottom zipper after donning flight gear.

After entering the aircraft, but **before securing the harness**, retrieve the hose and zip the flight suit to capture the hose. **Ensure that the hose is not kinked, crimped or pinched.**



Once seated in aircraft, adjust the cup for comfort and ensure that the tip of the cup is **down and between the legs**.

Donning the Female System

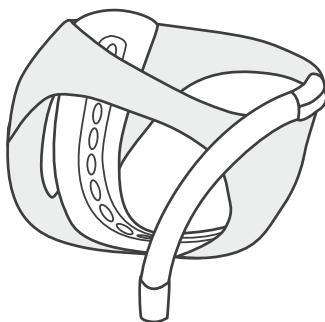


Prior to use, locate the **gold sensor** in the **Female Pad**. When seated in the ejection seat, the **Center Gold Sensor MUST BE located at the lowest point**.

The location of the sensor is critical for the AMXDmax® System to function properly.

It is very important that this be determined on the ground, prior to flight.

Place the **Female Pad** into the undergarment with the hose in the front and to the right. Use the **adhesive strip** located on the underside of the Female Pad to secure it to the undergarment.



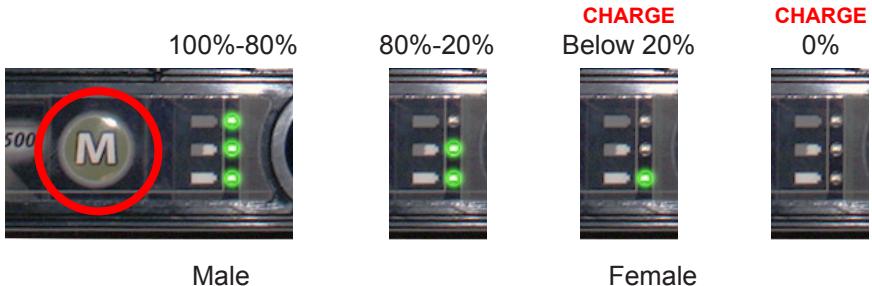
Attach the Hose to Velcro strip on the front of the Female Undergarment. Ensure that the hose can be retrieved through the bottom zipper after donning flight gear.

After entering the aircraft, but **before securing the harness**, retrieve the hose and zip the flight suit to capture the hose. **Ensure that the hose is not kinked, crimped or pinched.** See picture at bottom of Page 18 for reference.

Once seated in aircraft, adjust the pad for comfort and **ensure that the sensor is at the lowest point of aircraft seat.**

Prepping the System

Press the “M” push button for 1 second and release to display the battery charge status. Recommended to start mission with fully charged battery.



Slide the Control Unit onto the Collection Bag clip. There will be an audible click when the connection is made.



The AMXDmax® with battery weighs less than 4 oz, and is considered man or woman wearable.

Roll the Control Unit up in the Collection Bag and store in an available pocket that is accessible during flight.

Male System Operation

The Male System is designed to allow the user the option of connecting the Cup Hose to the Control Unit at the **begining of flight** and **remain connected for the mission duration**. Alternatively, the user may remove it from storage and connect it each time he needs to relieve his bladder.

To connect the Cup Hose to the Control Unit:



Align hose connector with clip and slide it into place.



When connected, there will be an audible click, and the control unit will beep twice.



When the user begins to relieve his bladder, the sensors in the Male Cup **automatically detect** urine and activate the Control Unit pump, transferring the urine from the cup and into the Collection Bag, keeping the user dry.

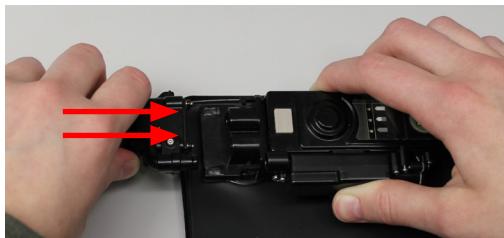
At the end of mission, pinch the sides of the hose connector and slide it away from the Control Unit.



Female System Operation

The Female System is designed to allow the user to connect the Pad Hose to the Control Unit prior to bladder relief. Once connected, the Pad will take approximately **30 seconds** to **inflate**, creating a **leak proof seal**. Once inflated, the system will automatically activate when the user relieves her bladder.

To connect the Pad Hose to the Control Unit:



Align Air Hose Connector with clip and slide into place.



When connected, there will be an audible click, and the control unit will beep twice.

The Female Pad will inflate, taking approximately 30 seconds to complete.

When the user begins to relieve her bladder, the sensors in the Female Pad **automatically detect** urine and activate the Control Unit pump, transferring the urine from the pad and into the Collection Bag, keeping the user dry.



After using, pinch the sides of the hose connector and slide it away from the Control Unit to deflate pad.

After Mission

Male



Female



To remove the Control Unit from the Bag, press the release button and slide the unit away from the clip.



Remove battery from control unit and recharge.



Drain collection bag.

Either dispose of Collection Bag and Male Cup or Female Pad, or clean for reuse. See Care and Maintenance (pg 24) for Cleaning instructions, or visit www.OmniAMXD.com to view the AMXDmax® Instructional Video



Care, Maintenance and Storage

WARNING: NEVER SUBMERGE THE ENTIRE CONTROL DEVICE

Cleaning

1. Attach all three components (Control Unit, Cup and Bag) of the AMXDmax® system together.
2. Fill Male Cup or Female Pad with warm water OR a solution of 3% Hydrogen Peroxide. The Control Unit should turn on automatically. If the system does not automatically turn on, press and hold the “M” button. Repeat this process twice.
3. Once all the water is pumped out of the Cup or Pad and into the Bag, move the Bag around to rinse it on the inside.
4. Open the drainage valve and empty the bag.
5. REMEMBER TO CLOSE THE VALVE AFTER DRAINING.
6. Submerge the connector end of the Control Unit in into warm water. DO NOT submerge past the release button.
7. Press and hold the “M” push button for 5 seconds, then remove the Control Unit from the water and hold the button for an additional 5 seconds to dry out the Control Unit pump.
8. DO NOT USE BLEACH, VINEGER, OR HEAVY DETERGENTS.

Storage

1. *Short Term Storage:* Always fully recharge batteries before storing.
2. *Long Term Storage:* The batteries must be recharged and left fully charged every 12 months.
3. Always store the AMXDmax® Control Unit in a dry place with temperatures between 0F and 150F (4°- 38° C).
4. Keep the AMXDmax® system away from heat, humidity or harmful chemicals and avoid long term exposure to sunlight.

Maintenance Tips

Omni recommends that the Male Cup, Female Pad, Control Unit, and Bag are cleaned daily to maintain their functionality.

Disposal

The Male Cup, Female Pad, and Collection Bag can be disposed of in any trash receptacle.

Troubleshooting

Having trouble?

Try these simple tips, email us at support@omnimedicalsys.com or call 1 (802)497-2253.

The Control Unit does not start ...

1. Check that the battery is charged by pressing the “M” button.
2. The unit should beep twice and flash battery status indicator lights.
3. If the Control Unit does not emit an audible beep or does not display a green light, remove the battery and replace with a charged battery.
4. If the battery fails to charge, please contact an Omni Medical Systems service technician.

The Control Unit doesn't automatically start pumping ...

1. Disconnect and re-connect the Male Cup or Female Pad connector to the Control Unit.
2. The Control Unit should beep twice .
3. If the Control Unit does not emit an audible beep, press and hold the “M” button to activate the pump. If the user needs to manually operate the pump by pushing the “M” button, this indicates the cup or pad is not automatically sensing urine, and needs to be replaced.
4. If the battery status indicator shows that the battery is charged and the Control Unit fails to start pumping, please contact an Omni service technician.

The charger indicator light is not working ...

1. Check that power supply is plugged in and is securely connected to the charger.
2. Remove and connect the rechargeable battery to the charger.
3. If the charger indicator light is not lit, please contact an Omni service technician.

Technical Specifications

Control Unit

Device Specifications

Flow rate	1.5 ± 0.1 LPM (-10F to 122F)
Operation charge	1.2 ± 0.1 LPM (above 122F)
	12 Relief Cycles on one battery

Environmental Specifications

Power	7.6V DC, 750mA
Weight	3 oz.
Dimensions	5”L X 1.2”W X 1”H
Maximum Noise Level	65 dB at 1 meter

Rechargeable Battery

Device Specifications

Chemistry	Lithium Polymer
Voltage	7.2V
Capacity	350 mAh
Charge Cycles	500
Storage	See page 24

Environmental Specifications

Weight	1 oz.
Dimensions	2.4”L X 1.2”W X 0.5”H

Charger for Lithium Polymer Battery

Device Specifications

Battery Chemistry	Lithium Polymer
Charging Voltage	8.4 V
Charging Current	350 mA
Charging Time	2.5 hours
Dimensions	2.3’L X 1.2’ w X .5” H
Wall Pack	Input ~ 100-240VAC (50/60Hz), 0.30A Output ~ 12V DC, 500mA

Reordering

The AMXDmax® is available direct from:
Omni Medical Systems
GSA

GSA - VA Contract Number: V797P- 4055B

GSA PTN	MFG & DOD PTN	PRODUCT NAME
CSK	CSK-A (Specify Male)	MALE STARTER KIT
CSK	CSK-A (Specify Female)	FEMALE STARTER KIT
SCU-RBP-VA	IMCR-2	COLLECTION UNIT (Male Cup)
SCU-ABP-VA	IFPR-15-1&2 IFPR-16-1&2	COLLECTION UNIT (Female Pad)
CCU-10	CB-10-A	COLLECTION CHAMBER UNIT (Bag)
MG-1 MG-2	MG-1 MG-2	MALE GARMENT (Size 1 / Size 2)
FG-1 FG-2	FG-1 FG-2	FEMALE GARMENT (Size 1 / Size 2)
SCU-RBP	SCU-RBP-A	BATTERY PACK RECHARGEABLE
SCU-ABP	SCU-ABP-A	BATTERY PACK DISPOSABLE

Contractor: Omni Measurement Systems, Inc.
CAGE CODE: 1UW92

Sales contact: Sales@OmniMedicalSys.com
TO ORDER: Phone: 802-497-2253 Fax: 802-497-3601

Visit our website at **www.OmniAMXD.com** to download and review the AMXDmax® PowerPoint presentation, introduction & instructional video, Users Manual, and component datasheets.



To re-order supplies please contact:

Omni Medical Systems

808 Hercules Drive Colchester, VT 05446

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www.OmniMedicalSys.com

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